

REMARKS/ARGUMENTS

The specification has been revised to conform it to the preferred format for U.S. patent applications as required in the Office Action, and a Substitute Specification and Comparison Copy are submitted herewith.

Claims 1-13 are pending in this application.

Claim 1 has been amended to correct a typographical error by changing "image layer" to --impression layer-- to conform the wording for that layer to its antecedent for purposes of clarification unrelated to patentability concerns.

Applicants note with appreciation that claims 6-9 are considered to be directed to allowable subject matter.

The present invention is an improvement over prior art die plates for stamping machines, such as disclosed in applicants' earlier patent 5,904,096 (which is the primary reference against the pending claims), in that it secures the metal impression layer 21, 24 to the plate steel back 20 with a compressible adhesive.

As is discussed in the background of the invention of the present application, die plates for foil stamping machines are typically rigid. However, the process of stamping requires some compressibility to ensure that a quality image is applied to the substrate. This usually takes the form of the packing behind the substrate. Further material is added behind the packing to correct low points in the die plate. Such material is usually added by glue or tape, and when the die plate is being replaced or repositioned, a flammable solvent must be used to remove the glue.

The present invention eliminates the need to add or insert material behind the packaging to "make up" low spots while also ameliorating a crushing and/or distortion of the substrate by the stamping machine. The advances of the present application provide substantial time and cost benefits over existing machines, eliminate the use of flammable solvents when changing or repositioning the die plates, and provide new security and anti-counterfeiting

applications. These are important advances over the prior art and solve significant problems that currently exist in the art.

Claims 1, 2, 4 and 5 were rejected for obviousness over Fawcett (5,904,096) in view of GB patent 1,533,431 (GB '431).

Fawcett was viewed as disclosing the present invention except that it "does not explicitly disclose a compressible adhesive layer that secures an image layer to a steel back". GB '431 was viewed as teaching to provide a compressible adhesive layer because it "teaches a letter press with a compressible mounting material adhesive layer for securing the metal impression layer to the steel back".

In view thereof, claim 1 (as well as dependent claims 2, 4 and 5) was viewed as being obvious because GB '431 "teaches that it is advantageous to have a compressible surface in order to compensate for adjustments between the plate surface and the paper to thereby produce a sharp clean image without distortions".

The present invention is not for a die plate with a "compressible surface". Instead, the present invention is directed to the manner in which the surface is rendered compressible.

Specifically, claim 1 requires "a compressible adhesive securing the impression layer to the steel back". None of the prior art references discloses or in any manner suggests to secure the metal impression layer recited in the claim to the steel back with a compressible adhesive.

Fawcett, the primary reference, neither "explicitly" nor implicitly or in any other way suggests a "compressible adhesive layer" as asserted in the Office Action. Fawcett secures steel back 14 to housing 2 (corresponding to magnetic holder 16 of the present application). The impression layer 12 of Fawcett is held against steel back 14 by magnetic forces. Column 2, lines 6-9 and column 4, lines 8-13 state that the magnetic attraction of steel plate 10 to magnet 9 must be greater "than the magnetic attraction between the steel backing 14 of the photo-polymer plate 12 ... and the magnet 9". There is no suggestion in Fawcett to otherwise attach the impression

layer 12 to steel back 14, and Fawcett does not devote a single word to securing the impression layer to the steel back with an adhesive, much less a compressible adhesive.

GB '431 was relied on as teaching "a letter press with a compressible mounting material adhesive layer" which, when combined with Fawcett, renders claim 1 obvious.

As is shown in Fig. 1 of GB '431, plate mount 10 secures printing plate 22 (shown in Fig. 2) to plate cylinder 21 and is a multi-layer composite defined by outer, pressure-sensitive adhesive layers 14, 15 with a reinforcing layer 12 and a underlying compressible elastomeric layer 11 sandwiched between the adhesive layers. GB '431 neither discloses nor suggests to secure the printing plate to the print cylinder with a "compressible adhesive" as required by claim 1.

To the contrary, GB '431 secures the printing plate to the print cylinder with pressure-sensitive adhesive layers 14, 15 (which in turn are bonded to each exposed layer surface of the two-layer laminate defined by compressive elastomeric layer 11 and reinforcing layer 12). GB '431 teaches that the pressure-sensitive adhesive can be "any of many such adhesives known for this purpose which have the well known four-fold balance of adhesion cohesive strength, stretchiness and elasticity". (Page 4, lines 26-30).

Thus, when Fawcett and GB '431 are combined, which one of ordinary skill in the art would not do because the two references are directed to very different printing methods, as is further discussed below, the composite mount 10 of GB '431 would be placed between impression layer 12 and steel back 14 of Fawcett. In such a case, the impression layer would not be secured to the steel back with "a compressible adhesive" as required by claim 1, but by a composite defined by two adhesive layers and a compressible layer in between to attain the desired compressibility of the printing surface.

Moreover, GB '431 discloses a printing plate of the type used from 30 years ago for flexographic letter presses, where an impression printing element (either in row or plate form) is inked and thereafter applied to a paper or other sheet stock to be printed to create a printed copy. Fawcett, on the other hand, is directed to foil stamping, a process for transferring

an ornamental design of thin metal foil or leaf to paper, card, plastic or similar media. The transfer of foil is carried out under the action of heat and pressure. (Column 1, lines 5-9). Foil stamping involves applying one solid layer (of metal) onto another solid layer (of paper, for example) to create what amounts to a composite or sandwich structure.

Printing of the type disclosed in GB '431 involves applying a fluid, such as ink, onto paper to produce copies at an extremely high rate, as is disclosed on page 1, lines 17-33 of GB '431. Since the two processes are technologically very different and unrelated, one of ordinary skill in the art would not consult the conventional printing art, as set forth in GB '431, for example, to solve a problem relating to securing a metal impression layer to a steel back for purposes of applying a thin metal foil to a surface. This is particularly true in view of the fact that such stamping machines employ a "combination of heat and pressure [to bind] the foil to the paper in the shape of the ornamental design". (Column 1, lines 17-18). One of ordinary skill in the art would recognize that adhesion methods which might work on ink printing machines which operate at room temperatures would be ill-suited for securing a metal layer to a steel back when subjected to heat and pressure, and vice versa. One of ordinary skill in the art would therefore not attempt to combine Fawcett and GB '341 to improve the manner in which the metal impression layer is secured to the steel back.

Thus, claim 1 is not obvious over Fawcett in view of GB '431 because one of ordinary skill in the art would not combine these two references for the reasons stated above.

Moreover, even if such a combination were attempted, claim 1 would not be obvious over the two references because neither of them teaches or in any manner suggests to place only the adhesive between the impression layer and the steel back.

Thus, even if such a person were to make such a combination, he would not wind up with "a compressible adhesive securing the impression layer to the steel back" as required by claim 1.

Accordingly, claim 1 is not obvious over these two references.


Dependent claims 2-13 are directed to independently patentable subject matter, as was already acknowledged by the indicated allowability of claims 6-9, and further because these claims depend from claim 1 and therefore incorporate by reference the features which distinguish claim 1 over the prior art. In this context, it is noteworthy that dependent claim 13 additionally recites that the adhesive layer only is disposed between the metal impression layer and the steel back, another feature clearly not disclosed or suggested in the prior art references.

CONCLUSION

Accordingly, applicants submit that all pending claims 1-13 are unobvious and allowable and request a formal notification thereof at an early date.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (415) 273-4730 (direct dial).

Respectfully submitted,


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